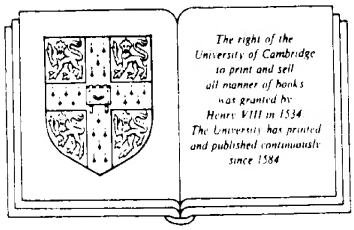
A DICTIONARY OF GENETIC ENGINEERING

STEPHEN G. OLIVER

Department of Biochemistry and Applied Molecular Biology
University of Manchester Institute of Science and Technology

JOHN M. WARD

Department of Biochemistry, University College, London



CAMBRIDGE UNIVERSITY PRESS

Cambridge

London New York New Rochelle

Melbourne Sydney

Published by the Press Syndicate of the University of Cambridge
The Pitt Building, Trumpington Street, Cambridge CB2 1RP
32 East 57th Street, New York, NY 10022, USA
10 Stamford Road, Oakleigh, Melbourne 3166, Australia

First published 1985

Printed in Great Britain by the University Press, Cambridge

Library of Congress catalogue card number: 84–19973

British Library Cataloguing in Publication Data

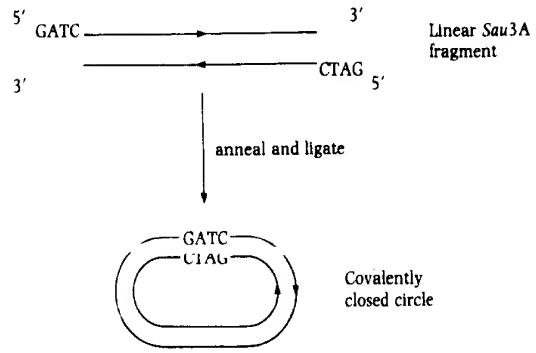
Oliver, S. G.
A dictionary of genetic engineering.
1. Genetic engineering
I. Title II. Ward, John M.
575.1 QH442

ISBN 0 521 26080 9

UP

Contents

Fig. 6. Circularization.



cleave This term has essentially its normal English usage and means to make a double-stranded cut in DNA with a restriction endonuclease.

clone This term is used in a number of senses. As a noun it may mean (i) a population of recombinant DNA molecules all carrying the same inserted sequence, or (ii) a population of cells or organisms of identical genotype. It is most frequently used to describe a colony of microorganisms which harbour a specific DNA fragment inserted into a vector molecule.

As a verb 'to clone' means to use *in vitro* recombination techniques to insert a particular gene or other DNA sequence into a vector molecule.

Cm^r, Cm^s Chloramphenicol resistant, chloramphenicol sensitive.

coding capacity The amount of protein which can be specified by a given DNA or RNA sequence. Estimates of coding capacity usually require assumptions about the absence of introns or of overlapping genes; as a rough guide 1 megadalton of double-stranded DNA can encode 60–70 000 daltons of protein.

coding sequence That portion of a gene which directly specifies the amino acid sequence of its protein product. Non-coding sequences of genes include control regions, such as promoters, operators and terminators as well as the intron sequences of certain eukaryotic genes.

coding strand The strand of duplex DNA which is transcribed into a complementary mRNA molecule.

		coding strand	
DNA	3′	TACTTTCGCAAATCACCCGCGGGCATA	5′
	5′	ATGAAAGCGTTTAGTGGGCGCCCGTAT	3′
mRNA	5′	AUGAAAGCGUUUAGUGGGCGCCCGUAU	3′